THE MARKET FORCES OF SUPPLY AND DEMAND

QUESTIONS

QUESTION 1:

What determines the degree of competitiveness in a market?

QUESTION 2:

The quantity demanded refers to the amount consumers are willing and able to purchase at different prices. Why is it important that consumers are not only willing but able to buy in analysing demand?

QUESTION 3:

Explain the difference between these two statements.

a) A rise in price leads to a decrease in quantity demanded.

b) A rise in price is caused by an increase in demand.

QUESTION 4:

A shift in the demand curve, to the left or right is caused by any change that alters the quantity demanded at every price. There are some factors for the shifts in the demand and supply curve.

a) What are the variables that influence sellers?

b) What are the variables that influence buyers?

QUESTION 5:

The market for pizza has following demand and supply schedules.

Price (TL)	Quantity demanded	Quantity supplied
4	135	26
5	104	53
6	81	81
7	68	98
8	53	110
9	39	121

a) Graph the demand and supply curves. What is the equilibrium price and quantity in this market?

b) If the actual price in this market were above the equilibrium price. What would drive the market towards the equilibrium?

c) If the actual price in this market were below the equilibrium price. What would drive the market towards the equilibrium?

QUESTION 6:

Suppose we have the following market supply and demand schedules for bicycles:

Price	Quantity Demanded	Quantity Supplied
€100	70	30
200	60	40
300	50	50
400	40	60
500	30	70
600	20	80

a) Plot the supply curve and the demand curve for bicycles

b) What is the equilibrium price and quantity of bicycles?

c) If the price of bicycles were €100, is there a surplus or a shortage? How many units of surplus or shortages are there? Will this cause the price to rise or fall?

e) If the price of bicycles were €400, is there a surplus or a shortage? How many units of surplus or shortages are there? Will this cause the price to rise or fall?

f) Suppose that the bicycle maker's labour union bargains for an increase in its wages. Further, suppose this event raises the cost of production, makes bicycle manufacturing less profitable, and reduces the quantity supplied of bicycles by 20 units at each price of bicycles. Plot the new supply curve and the original supply and demand curves. What is the new equilibrium price and quantity in the market for bicycles?

QUESTION 7:

Market research has revealed the following information about the market demand and supply schedule for chocolate bars.

Q_d = 1600 - 300p
Q_s = 1400 + 700p
Calculate the equilibrium price and quantity in the market for chocolate bars.

QUESTION 8:

Each of the events listed below has an impact on the market for bicycle. For each event, which curve is affected (supply or demand for bicycles), what direction is it shifted, and what is the resulting impact on equilibrium price and quantity of bicycles?

a) The price of cars increases
b) Consumer's incomes decrease, if bicycles are a normal good.
c) The price of steel used to make bicycle frames increases.
d) An environmental movement shifts tastes toward bicycling.
e) Consumers expect the price of bicycles to fall in the future.
f) A technological advance in the manufacture of bicycles occurs
g) The price of bicycle helmets and shoes is reduced.
h) Consumers' incomes decrease, if bicycles are an inferior good.

i) This question addresses a market when both supply and demand shift. What would happen to the equilibrium price and quantity in the bicycle market if there were an increase in both the supply and demand for bicycles?

j) This question also addresses a market when both supply and demand shift. What would happen to the equilibrium price and quantity in the bicycle market if the demand for bicycles increases more than the increase in the supply of bicycles?

QUESTION 9:

The following questions address a market when both supply and demand shift

a) What would happen to the equilibrium price and quantity in the bicycle market if there were an increase in both the supply and demand for bicycles?

b) What would happen to the equilibrium price and quantity in the bicycle market if the demand for bicycles increases more than the increase in the supply of bicycles?

QUESTION 10:

Using supply and demand diagrams, show the effect of the following events on the market for sweatshirts

a) A drought in Turkey damages the cotton crop.

a. The price of leather jackets falls

b. All universities require students to attend morning exercise classes in appropriate attire.

c. New knitting machines are invented.

QUESTION 11:

Suppose that the price of tickets to see your local football team play at home is determined by market forces. Currently, the demand and supply schedules are as follows.

Price (TL)	Quantity demanded	Quantity supplied
100	50.000	30.000
200	40.000	30.000
300	30.000	30.000
400	20.000	30.000
500	10.000	30.000

a. Draw the demand and supply curves. What is unusual about this supply curve? Why might this be true?

b. What are the equilibrium price and quantity of tickets?

c. Your team plans to increase total capacity in its stadium by 5.000 seats next season. What admission price should it charge?

QUESTION 12:

The inverse of the supply function is given by $P = 2 + 0.0032Q_s$. The demand function is $P = 20 - 0.004Q_d$

a) Draw a graph of these functions.

b) Read of the market equilibrium quantity and price from the graph.

c) Confirm your answer in b) with a calculation.

QUESTION 13:

The inverse supply function $P = 30 + 1\,8/Q_s$ shows the willingness of producers to sell their output for different prices. The government introduces a new tax on the product that the producers will have to pay to the tax authorities. For each unit of output sold producers have to pay €32.50.

a) Calculate the shifted new supply function and show the new and old supply functions in a diagram.

b) $P = 160 - 0.2Q_D$ represents market demand. Sketch the demand function in the graph from a) and read of the old and new equilibrium.

c) Verify your answers to b) algebraically.

QUESTION 14:

The table below shows the demand function and the supply function for a good in a perfectly competitive market.

a) What are the quantity traded and the price in the market equilibrium?

b) Are the supply and the demand linear functions?

c) Calculate the demand and the supply function from the data in the table.

d) Assume there is a change in demand, the product in question all of a sudden is very fashionable. Show this in the fourth column in the table.

Price [€/unit]	Quantity supplied	Quantity demanded
0.00	0.0	800.0
5.00	0.0	775.0
17.00	0.0	712.5
30.00	0.0	650.0
42.50	100.0	587.5
55.00	200.0	525.0
67.50	300.0	462.5
80.00	400.0	400.0
92.50	500.0	337.5
105.00	600.0	275.0
117.50	700.0	212.5

QUESTION 15:

Suppose you are chatting to a friend in Brazil on the Internet. Your friend tells you that the weather is forecast to be really cold in the next few weeks and the frost that's expected will damage the coffee crop. Your friend says, "If there are going to be fewer coffee beans available, I'll bet that coffee bean prices will rise. We should buy enormous quantities of coffee beans now and put them in storage. Later we will sell them and make a huge profit."

a) If this information about the weather is publicly available so that all buyers and sellers in the coffee bean market expect the price of coffee beans to rise in the future, what will happen immediately to the supply and demand for coffee beans and the equilibrium price and quantity of apples?

b) Can you "beat the market" with public information? That is, can you use publicly available information to help you buy something cheap and quickly sell it at a higher price? Why or why not?

c) Suppose the expected frost in Brazil is not reported outside of Brazil. Can you "beat the market" with inside information? Why?